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Clinical Section

*New Thoughts on the Prevention of Maternal Deaths

By

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Since the war there have been trends in obstetrics and investigations of maternal mortality which justify the title assigned, New Thoughts on the Prevention of Maternal Deaths. These trends are the growing importance attached to prenatal care and the desire to make labour as painless as possible. There have been of late numerous investigations into the causes and contributory factors of deaths in the puerperal state but three especially stand out. These are: that undertaken by the Committee of the Ministry of Health of Great Britain on Maternal Mortality and Morbidity, the White House Conference at Washington and the investigation made by the Committee of the New York Academy of Medicine. Such works as the Final Report of the Departmental Committee of the British Ministry of Health (1932); Maternal Mortality in New York City (1933) and Maternal Mortality and Morbidity by Dr. J. M. Munro Kerr (1933) contain the results of thorough and impartial enquiries and the conclusions stated therein should be laid to heart by every one who practices obstetrics.

The International List of Causes of Death now adopted by all civilized countries lays down eight causes of deaths connected with the puerperal state. These are:

1. Accidents of pregnancy, which include abortion, ectopic gestation, moles, hyperemesis, retroversion of the gravid uterus.

2. Puerperal haemorrhage, including accidental haemorrhage from separation of the normally implanted placenta, placenta praevia, postpartum haemorrhage, adherent placenta.

3. Other accidents of labor, such as caesarean section, application of forceps, rupture of uterus, difficult labor, version, abnormal presentation.

4. Puerperal septicaemia.

5. Puerperal phlegmasia alba dolens, embolus, sudden death.

6. Puerperal albuminuria and convulsions – in other words – toxaemia and eclampsia.

7. Following childbirth (not otherwise defined) including puerperal insanity.

8. Puerperal diseases of the breast.

The subject will be discussed under these headings:

ABORTION

Dr. E. W. Montgomery has called attention to the number of maternal deaths as a result of abortion, usually induced. Since abortions are not notifiable, and as a doctor is often not called, no one knows their frequency, or what ratio they bear to labour at term. The ratio used to be stated as 1 abortion to 6 deliveries at term. Now in Canada it is probably 1 to 4 or even 1 to 3. In some European countries the ratio is 1 to 1. The question arises: what is the proper treatment of abortions, conservative or operative? This is a vexed question. My own feeling is that an abortion is a miniature labour, and that rest in bed with sedatives to relieve pain, and ergot, quinine and pituitrin to check bleeding will suffice in the great majority of cases. The ovum, or the foetus, placenta and decidua will come away spontaneously and in many cases not a single vaginal examination need be made. If haemorrhage is excessive it can be controlled by packing and on removal of the packing the ovum and decidua usually come away. The case of the patient first seen with a septic induced abortion is most difficult for the attending physician. Sometimes he is damned whatever course he pursues. In all cases he should follow sound surgical principles, the first of which is to do no harm.

In ectopic gestation a careful history is even more important than the pelvic examination. A leucocyte count is often of value in making the diagnosis. If much blood has been lost fluid volume should be restored, preferably by blood tranfusion from a suitable donor, auto transfusion, or intravenous injection of gum acacia or glucose.

HYPEREMESIS

The death rate from hyperemesis gravidarum could be reduced to almost nil if patients were transferred to hospital before sickness became intractable. In the Glasgow Royal Maternity Hospital the death rate of those suffering from this accident of pregnancy and who had received antenatal supervision was 2.7% while for those admitted as emergencies it was 10%. Jaundice, high ammonia coefficient and abundant diacetic acid and acetone in the urine are bad signs, and unless prompt relief is afforded by the administration of sodium bicarbonate or glucose with or without insulin, the uterus should be emptied. If the pregnancy has lasted over eight weeks vaginal hysterotomy is the method of choice. Chloroform or ether should not be used as anaesthetics.

HYDATIDIFORM MOLE

If hydatidiform mole is diagnosed the uterus should be emptied as soon as possible. As chor-

*Read at Post Graduate Course, Manitoba Medical College, September, 1935.

ionepithelioma sometimes follows, the patient should be watched carefully for the next few months. She should be warned to report any irregular bleeding. The Ascheim Zondek reaction is of value here. A negative Ascheim Zondek reaction after six to eight weeks would indicate safety, while a strongly positive Ascheim Zondek reaction two or more months after the removal of the mole would be presumptive evidence of very probable malignancy and would justify curettage.

HAEMORRHAGE

Puerperal haemorrhage is a frequent cause of death, and is of special interest to the obstetrician. The New York Academy of Medicine's Committee on Public Health Relations found that of the 199 deaths in New York City, 1930-1932, from haemorrhage 150 or 76.1 per cent were preventable. For these 150 cases classed as preventable, the responsibility was ascribed to the physician in 76.7 per cent, to the patient in 18.0 per cent and to the midwife in 5.3 per cent. Failure to use all methods for the control of the bleeding, such as proper packing of the uterus, combined with oxytocic drugs, as well as tardiness in combating the effects of haemorrhage by transfusions of blood and infusions of fluids, accounts for the high percentage of preventable cases in this group. Now that drug manufacturers supply ampoules of sterilized sodium citrate solution, blood transfusions by the citrate method can be practised by any medical man who has had experience in intravenous therapy. In the Great War a Canadian Medical Officer performed blood transfusions single-handed in an advanced dressing station of a field ambulance. If a blood donor is not available 6% gum acacia or even normal saline can be substituted and may carry a patient through the crisis. All these solutions can be procured in portable form from the drug houses. In an emergency, an intravenous needle, rubber tubing, funnel, with boiled water and sufficient table salt to make a normal saline, can be utilized and may turn the tide in the patient's favour. Better even than the proper treatment of haemorrhage is the prevention of haemorrhage. Proper pre-natal care will either safeguard the patient from toxaemia which is often the precursor of accidental haemorrhage, or will provide early recognition and prompt treatment of the toxaemia. Placenta praevia will be recognized early if patients are warned of the dangers of antepartum haemorrhage, or are told in language plainer to them that "blood before the baby is bad." Even a suspicion of placenta praevia justifies a patient's removal to hospital. Even then no vaginal examination should be made unless everything is in readiness to treat haemorrhage should it occur. Very recently attention has been called to the value of X ray in the diagnosis of placenta praevia. If a patient with placenta praevia is not seen until she has had exhausting haemorrhage, a blood transfusion should be given before undertaking delivery of the foetus. Postpartum haemorrhage is practically always due to an improperly managed third stage. Arrest of haemorrhage from the uterine sinuses after delivery of the placenta depends upon the power of the uterus to contract and retract. During the labour and especially during the third stage nothing should be done which will impair this inherent power of the uterus. Proper prenatal care will see that the patient approaching labour is not anaemic or poorly nourished and care during labour will prevent too great loss of rest, excessive pain, lack of fluids, or chilling of the body. Munro Kerr recently has called attention to the value of injecting 300-400 cc. normal saline solution into the umbilical vein to detach an adherent placenta in preference to manual removal of the plaenta, a procedure always fraught with grave risk.

The third group of causes of maternal death may be classed as the operative group. It comprises caesarean section, application of forceps, rupture of the uterus, difficult labour, abnormal presentations, shock.

CAESAREAN SECTION

It cannot be denied that in its proper place caesarean section is a most satisfactory and life-saving operation. Yet even when undertaken with the proper indications and in suitable surroundings caesarean section carries with it the slight but definite risk of a one to two per cent mortality. If performed upon an infected patient, especially if the classical operation is done, the mortality becomes appalling. The risk increases with every hour after rupture of the membranes. Caesarean section should never be an operation of last resort, or undertaken simply to get out of a tight situation. In 5,339 deliveries on the public ward service of the Winnipeg General Hospital between 1923 and 1933, there were 43 caesarean sections, an incidence of less than one per cent, and forceps were applied in 425 cases or 7.96%. The vast majority of these 425 forceps operations were low forceps, done in many instances for teaching purposes. Munro Kerr states that the cases in which forceps is necessary need not exceed 6 to 8 per cent at the very utmost. There is no doubt that in Manitoba as well as in Great Britain and the United States forceps operations are too frequent. Thus the New York Academy of Medicine found that during the period 1930-1932 in 67 representative hospitals 24.3 per cent of deliveries were operative. If all obstetrical operations were performed by skilled men the risk to patient might not be great, but unfortunately there is an opinion prevalent that no special training is necessary for even the major obstetrical operations and the results of some operations done by unskilled operators are terrible.

Rupture of the uterus always occurs as an emergency, and usually follows obstructed labour plus operative measures such as mid or high forceps or version. Intelligent prenatal care would tend to prevent the emergency arising, by diagnosing and correcting, when possible, abnormal presentations, or by diagnosing pelvic contraction or deformity and determining the course to be pursued in

the light of that knowledge. The great value of external version in breech presentations done during the last five weeks of pregnancy has been pointed out repeatedly.

Shock can be largely prevented by proper care during labour. Such measures as the securing of rest for the patient during a prolonged labour, the prevention of unnecessary pain by judicious exhibition of morphine, the administration of fluids, especially glucose solution, to replace fluid loss, proper anaesthesia, the performance of an episiotomy in place of allowing the perinaeum to be torn, and guarding against excessive blood loss are points well known to those trained in surgical principles.

Septicaemia

The treatment of puerperal septicaemia will be discussed by Dr. Cadham and therefore need not be considered here. However, the prevention of septicaemia is better than even the most skilled treatment. Every labour should be managed on surgical principles. Rubber gloves and masks to prevent droplet infection should be worn by attendants. Tissue damage should be reduced to the minimum. In institutions patients with known infections, or attendants who are haemolytic streptococcus carriers should be isolated from noninfected patients. Some writers have advocated prophylactic immunization of pregnant women against the Streptococcus haemolyticus but whether this is practicable is not yet decided.

Toxaemia

Puerperal albuminuria and convulsions are responsible for a heavy toll of mothers lives. Under existing conditions it is too much to hope that the toxaemias of pregnancy can be eliminated completely but with proper prenatal care they can be recognized early and treatment undertaken promptly so that deaths from this cause should rarely, if ever, occur. The proper place in which to treat serious toxaemias is the hospital where the patient can be under constant supervision, and where if medical measures fail, induction of labour or possibly caesarean section can be performed without delay.

Puerperal insanity can largely be prevented by proper prenatal care and by avoiding sepsis during labour or the puerperium.

Anaesthesia

Anaesthesia in labour is not an unmixed blessing. The New York Academy of Medicine Committee on this point found as follows: "Anaesthesia should not be undertaken casually, and should be used in the light of the known fact that an anaesthetic, of whatever type, is a dangerous and profoundly toxic drug. Before exposing the patient to the additional strain of its administration, satisfactory indication for its use must be present. The responsibility of the accoucheur is primarily to insure a living baby and mother and to accomplish these objectives with the least possible suffering compatible with proper management. The mere alleviation or the entire elimination of pain may be achieved at a cost to mother or infant which should be prohibitive."

To a lesser extent the above remarks apply to sedative and analgesic drugs which are now so freely used.

Pituitrin

Pituitrin is a drug which in abused at times. There is no doubt of its value in promoting rapid contraction of the uterus after the contents have been expelled, but its use in the second stage of labour is open to question. Munro Kerr (1933) sums up as follows:

"We would also emphasise the danger of employing pituitary extract with the head still within the cervical canal, more especially if the cervix is incompletely dilated. We have witnessed several examples of rupture of the uterus and vagina as a result of this unwise treatment. There is no great objection to the administration of pituitary extract (½ c.c.) in a multipara when the head is at the vulvar orifice and in normal position. The application of forceps, however, is probably the better choice, as pituitary extract given before delivery of the child or placenta is liable to favour retention of placenta and membranes."

Pre-Existing Disease

Pre-existing disease, such as heart disease, chronic nephritis and tuberculosis is responsible for many maternal deaths rather than the accompanying puerperal state. Yet pregnancy undoubtedly is a contributory factor. The following is the recommendation on this point in the Final Report (1932) of the Departmental Committee of the British Ministry of Health on Maternal Mortality and Morbidity—

"Every pregnant woman should have a routine medical examination by a doctor during the early months of pregnancy. More hospital accomodation should be provided for the treatment of cases of heart disease, tuberculosis and nephritis associated with pregnancy. Where it appears that further childbirth will endanger life, medical advice should be given as to the prevention of pregnancy."

One question that arises is the relative safety of the home and the hospital for the parturient woman. The correct answer as to which is the safer place is not easy to determine. In the home the patient is amid familiar surroundings, she is not obliged to rush off to an institution perhaps at some distance, and above all she is not so liable to exposure to infection from unfamiliar, and possibly highly virulent organisms. On the other hand some procedures cannot be undertaken in the home, skilled help is not available, nor is there organization of material and personnel that obtains in a good hospital. Statistics do not settle the point since the more difficult cases are sent to the hospital, either when an emergency arises or women who have experienced difficulty in pre-

vious labours at home come to the hospital for subsequent confinements. In the ten year period July 1, 1923, to June 30, 1933, there were 5,339 deliveries on the public ward service of the Winnipeg General Hospital with 22 maternal deaths, a total rate of 4.12 per 1000 births, which is less than the rate for Canada at large. But five of these twenty-two deaths were due to non-puerperal causes, cerebellar tumour, meningitis, auricular fibrillation, cardiac decompensation and chronic nephritis. If these are excluded the rate falls to 3.18 per 1000 births. Moreover six cases died within twelve hours after admission and were moribund on admission. If these are excluded and only those included which may properly be charged against the hospital the mortality rate falls to 2.06 per 1000 births which is quite as good as a similar number of domicilary deliveries would show. From this it would appear that in a well-equipped hospital where a rigorous antiseptic technique is carried out the patient is at least as safe as at home, even when the hospital cares for the more difficult cases.

The gist of the problem of preventing maternal deaths is to be found in Professor R. W. Johnstone's advice to "cultivate the obstetric conscience."

*Intracranial Hemorrhage of the Newborn

By

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Intracranial hemorrhage of the Newborn is, relatively speaking, a recent entity as a cause of death of infants. A French physician, Denis, in 1826, was the first to call attention to this and since then there have been periodic outbursts of enthusiasm, but as a whole it has not received the attention and consideration of the profession that other conditions of a less serious nature have. The reason for this apparent apathy lies perhaps in the fact that the Newborn experience a sort of "zero hour" during its transfer from the Obstetrician to the Paediatrician — a period varying from a few to many days—and it is during this period that measures of benefit are lost and the child either dies, or in a small percentage of cases grows up to be a cripple, mentally or physically or both. Any interest that has been given to this topic is very recent. Ford, recording 136 articles published on this subject, found that 50% appeared between 1920-1927.

INCIDENCE

Sharpe [1] doing lumbar puncture on two hundred consecutive cases found blood in the spinal fluid in eleven (11%) per cent. Sharpe and MacLaire,[2] Roberts [3] and Ullrich,[4] in independent series of consecutive cases ranging from two hundred to four hundred cases, found blood in the spinal fluid in ten to fifteen per cent. Thus, we see that the incidence varies anywhere from ten to fifteen per cent. of all Newborn. The actual percentage of bleeding, however, is even greater when one considers that bleeding above the tentorium (20% of cases) doesn't necessarily show blood in the cerebro spinal fluid.

The importance of intracranial hemorrhage as a cause of death is very startling. Warwick [5] and Rodda [6], showed at autopsies, that of all infants dying in the first week of life, forty to fifty per cent. died as a result of intracranial hemorrhage. This high mortality—apart from sequelae later in life—marks intracranial hemorrhage as a factor of prima facie in infant mortality. In the U.S.A. approximately 150,000 infants are born dead yearly. It is safe to assume that 50% of these are due to intracranial damage at birth. In other words, 75,000 infants die of intracranial hemorrhage. In addition, there are thousands in institutions whose disabilities may be traced to intracranial injuries at birth.

ETIOLOGY

Most every one has had the occasion to experience an obstetrical case or cases where a child was born from a perfectly normal spontaneous labour and later (3-4 days) developed intracranial hemorrhage. On the other hand many cases of difficult labor, or where forceps have been used, cases where one would expect hemorrhage—turn out to be quite normal. In other words, there are other causes besides trauma. Trauma, no doubt, is the precipitating agent, but there must be other predisposing factors.

Two important factors are:—

(*a*) Vascular weakness.

(*b*) Defect in the blood clotting mechanism of the blood.

(*a*) There is evidence [7] that deficiency of Vitamin B_1 (or F.) in the diets of pregnant women is one of the factors responsible for hemorrhagic disturbances in the newborn, involving the Vascular system. The analogy is probably the same as the deficiency of Vitamin C, causing hemorrhage in scurvy. Prematurity and syphilis are other conditions that render the Vascular system susceptible to injury.

(*b*) The blood of the newborn normally clots in about 4 - 6 minutes. This clotting time, during the next three or five days, becomes more delayed. In about three per cent. of the cases, this delay in the clotting time continues, and clotting almost disappears. This abnormal clotting time is termed Hemorrhagic Disease of the newborn, and is due to a deficiency of prothrombin [7]. Here, too, the diet seems to play an important role. It is well known that a diet abundant in protein and fat will produce a fast clotting time (clotting diet), whereas a diet rich in carbohydrates and mineral salts will produc a prolonged clotting time (bleeding diet).

* Read at Winnipeg Medical Society, October, 1935.

Kugelmass[8] cites a case report in which a mother, during her first four pregnancies lost each child with hemorrhagic disease (melena). During these pregnancies she exhibited moderate toxemia and was put on a low protein diet. In her fifth pregnancy she was put on a high protein diet in spite of her toxemia, and bore a normal child with no evidence of hemorrhage. This child has been under observation for about six years and is quite normal. In the sixth pregnancy she refused to be under the previous diet supervision, and this infant died from hemorrhage (melena). During her 7th pregnancy the diet supervision carried out during the 5th pregnancy (normal one) was again exercised, and this child has remained free from any blood dyscrasias. This remarkable case report shows quite plainly that the high protein diet must have been a factor in the production of the two normal infants.

ANATOMICAL CONSIDERATIONS

With reference to the sites of injury, this may occur in almost any section of the dura, but about 50% of all the tears involve the tentorium cerebelli. Lacerations may involve one or both sides of the tentorium. Intracerebral and intraventricular bleeding are rare and mostly found in premature infants. Subependymal bleeding is also rare and is typical of prematures.

SYMPTOMS

The symptoms vary with the location and the amount of blood. Not all cases of bleeding have symptoms. A typical case can be described thus:

There may or may not have been a history of difficult labor, and the child may or may not have been asphyxiated at birth. Normally, a newborn lies quietly, unless disturbed, shows a desire for food and falls off to sleep after feeding. In intracranial hemorrhage, the infant shows little or no desire for food, and is very listless and difficult to arouse. In some instances it may cry incessantly. A moderate amount of cyanosis is generally present. In more severe cases, there will be a bulging fontanelle disturbed respirations, strabismus twitchings of the extremities, or convulsions. If severe enough the child passes into coma and dies, or may recover. Of those exhibiting twitchings and convulsions, a greater majority die rather than survive. If the bleeding has been due to injury the symptoms will come on the first day, but if due to straight hemorrhagic disease, they will generally appear about the fourth day.

Some authors distinguish between bleeding above and below the tentorium. In the former, a tense fontanelle and cortical irritation (twitchings and convulsions) will come on early, whereas in the latter, cyanosis and drowsiness are early signs, and twitchings, a late one.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis should occasion no difficulty if, one will keep in mind, the fact that intracranial hemorrhage is the commonest disorder of the newborn.

Conditions which might confuse one are:

1. Congenital heart disease. Here the cyanosis is present from birth and is constant. Auscultation over the heart will suffice to differentiate the two.
2. Thymus: The cyanosis here is intermittent and x-ray generally can rule out or confirm this. The infant appears quite well.

A positive diagnosis of intracranial hemorrhage can be made by lumbar or cysternal puncture.

PROGNOSIS

At present there exists some controversy as to whether intracranial hemorrhage is responsible for as great a number of cases of congenital cerebral trouble in childhood as paedietricians tend to show, or whether it is due to developmental defects or aplasia. Various evidence, con and pro, has been put forward regarding the conditions of spastic diplegias of childhood, imbecility, idiocy and other minor affections.

Little, as early as 1862, by investigating the birth histories of spastic paraplegias, idiocy and epilepsy in childhood, found evidences of either asphyxia, prematurity or abnormal deliveries, in all cases. *Sara MacNut*[9] in 1885 found a definite relationship between birth injuries and spastic paraplegia in children. *Osler*[10] regards the cause of Little's disease as due to meningeal hemorrhage in a large percentage of cases. *Jansen*[11] in 152 cases of congenital spastic paraplegia came to the conclusion that birth trauma and hemorrhage play a greater part than family disposition, syphilis or infection. *Roberts*[3] in 423 newborns, found sixty cases with blood in cerebro spinal fluid.

He followed 54 cases of these 60.

Twelve died in the first few months.
Of the 42 living—
1 showed paraplegia.
1 showed retarded mental development.

Fleming[12] followed 33 cases of intracranial hemorrhage.
4 showed spasticity.
1 showed hydrocephalus.

Munro[13] followed 48 survivals of a series of cases of intracranial hemorrhage.
4 died of known cerebral disease.
3 were discharged as normal, but later developed signs of cerebral damage.

Allan Starr states that in a series of idiots at autopsies he found evidence of old hemorrhage in 20 per cent. *Rydberg*[14] in his monogram followed 41 cases for a period ranging from 3 - 18 years. These cases all showed signs of cortical irritation (twitchings, bulging fontanelle, etc.), at birth.

16 cases became idiots and imbeciles.
10 showed feebleness of intelligence.
1 showed Jacksonian epilepsy.
1 showed Epilepsy (major attacks).
2 showed spasticity of the lower extremities, but normal mentally.

He concludes that in intracranial hemorrhage, who exhibit major cerebral symptoms, the prognosis, although not hopeless, must be regarded with more than little concern. *Smith* in a recent article shows that the presence of blood in cerebro spinal fluid is not the deciding factor regarding prognosis, but clinical signs alone are to be considered. In a follow-up series of subsequent brain damage, there were as many without blood in fluid (at birth) as with blood. He thinks death is due to shock, and advises against lumbar puncture unless there is evidence of increased pressure.

PREVENTION

It is quite true that better obstetrics will prevent gross intracranial injury with resulting hemorrhage, but what of that group of cases that developed hemorrhage on the 3-4-5 day following a normal spontaneous labor, or an easy forceps delivery?

That there are certain mothers who give birth to babies with hemorrhagic tendencies is being recognized. Kugelmass' human experiment quoted previously, is a very striking illustration. This hemorrhagic tendency may, in the future, be able to be detected prenatally by blood examinations of the mothers and remedied by the high protein diet during pregnancy. Kugelmass and Samuels have shown that a high protein diet, particularly Viscera and Gelatin, during pregnancy, will increase the prothrombin and fibrinogen constituents of the mother's blood. This may be explained by the protein nature of these 2 blood substances, both of which are synthesized in the liver. Slight bleeding tendencies in older children have been cleared up by a high protein diet.

TREATMENT

The treatment of intracranial hemorrhage has two purposes in view:

1. Prevention of bleeding tendencies in the infant.
2. Removal of blood once its presence is determined.

Heffernan [15] in a routine series of 1426 cases over a period of 6 years, gave intramuscular injections of whole blood as soon as the child was born. He found intracranial hemorrhage almost negligible in his series.

6 showed signs and symptoms of intracranial hemorrhage, but they all have recovered, and are well at present.

1. *Kugelmass* [7] in a series of 200 infants with a control series, by feeding a three per cent. gelatine solution every 3 hours, reduced the average clotting time from nine to two minutes, and didn't find a single case of intracranial hemorrhage. He explains the result as due to the concentration of platelets on the vascular bed. The avoidance of too low a protein in the mother must also be considered.

2. The removal of blood, once it is found to be present in the cerebro spinal fluid, is of benefit since it relieves pressure on vital centres, and prevents adhesions? and the avoidance of subsequent damage. The cysternal route in experienced hands is probably the easiest and quickest procedure for doing this and does not entail the dangers that one would at first imagine. The amount of cerebro spinal fluid removed can vary from ten to thirty cc's and repeated as often as necessary—the symptoms being the guiding principle. 1 - 3 x per day.

Intramuscular injections of whole blood will suffice to control the hemorrhage. Occasionally this method is not sufficient, and transfusion has to be resorted to. Other measures, such as oxygen tent, magnesium sulphate by rectum, etc., are of value.

CONCLUSION

The early diagnosis and prompt and rapid treatments are the prime considerations in intracranial hemorrhage. The routine injections of whole blood immediately at birth are not difficult or troublesome, and have much to commend them.

The prognosis of cases showing major cerebral symptoms (marked cyanosis, twitchings and convulsions) is to be guarded, especially with regard to the development of paraplegias, idiocy, epilepsy or imbecility.

The following are case reports of intracranial hemorrhage, four of which were followed for over one year, and one for four years.

No. 1 – Baby Y.—Born at term; breech delivery; labor, 1 hour; no forceps; bleeding time =0 minutes; clotting time =3 minutes. On 2nd day the child began to cry excessively; c vomiting of feedings. 3rd day the child became listless, vomitings continued, nursed poorly. 4th day 15 cc whole blood subcutaneously administered; lumbar puncture showed trace of blood; a cysternal puncture showed blood 2 plus. 8th day child died. No post mortem. Death due to intracranial hemorrhage.

No. 2 – Baby B.—Born at term; labor 3 hours; forceps used; bleeding time =0 minutes; clotting time =25 minutes; born cyanosed; noisy and spasmodic breathing. 2nd day blue spells; rigidity of legs and arms; a few spells of mild convulsions. These symptoms continued on and off for next 7 - 8 days. After that they subsided and the child was discharged apparently normal.

An x-ray of the thymus proved to be negative.

At Present—child is almost 4 years of age. She began to sit up at age of 3 years. Began to walk and talk at 3½ years of age. She has a very spastic gait, and walks with assistance only. Her speech is limited, and only a few words are intelligible. She is undoubtedly a typical example of Little's Disease, and the prognosis is anything but bright.

No. 3 – Baby T.—Born at term; easy labor; hydramnics; bleeding time =0 minutes; clot-

ting time =7 minutes; born cyanosed. 2nd day there was moderate cyanosis and excessive crying. 4th day the child was very listless, nursed poorly and appeared spastic. Irregular respirations. This continued up to the 9th day with very little change in the condition at the time of discharge. 15 cc of whole blood were given on the 7th day. There was slight bleeding from the rectum on the 7th day.

Present—child died at age of 10 months; unable to ascertain exact cause, as the child left the city.

No. 4 – Baby G.—Born at term; R.O.P; difficult labor; 12 hours after birth infant vomited blood and had choking spells. 2nd day, listless, wheezy respirations and slight cyanosis. 5th day, cysternal puncture showed blood 2 plus. 6th day, symptoms subsiding. 7th day, appears much brighter. Discharged apparently O.K.

Present—child 1 year old; appears quite normal for age.

No. 5 – —Baby M.—Born at term; R.O.P.; long, difficult labor; forceps; bleeding time =0 minutes; clotting time =3 minutes. 2nd day, shallow respirations and occasional twitchings of extremities and vomiting. 3rd day, symptoms same. Cysternal puncture showed blood 2 plus; whole blood intramuscularly given. During next 4 days symptoms gradually cleared up and baby apparently O.K.

Present—child 1 year old, quite well, and apparently normal for age.

No. 6 – Baby McI.—Fourth child; born at term; R.O.P.; changed to breech and delivered as such; difficult labor (8 hours); bleeding time =0 minutes; clotting time =8 minutes. On 4th day child became listless, with moderate cyanosis; too weak to feed; moaning, crying and very drowsy. These symptoms continued for 4 days, and after that the child gradually improved. There was no spinal fluid drainage or intramuscular blood given. Discharged apparently O.K.

Present—child is 4 years of age. He has had epileptic seizures (grand mal) on 3 occasions during the past one year. Physical examination; x-ray of skull; examination for worms; blood calcium and phosphorus; W.R. and Von Pirquet were all normal. This boy probably has epilepsy, which most likely is due to intracranial hemorrhage at birth.

No. 7 – Baby N.—2nd child; born at term; L.O.A.; spontaneous delivery (long 2nd stage); child born cyanosed. Cyanosis persisted for 8 - 10 days. Listlessness with moaning cry almost present from 1st day on. Ecchymosis about eyes; blood in stool on 2 occasions. Occasional twitchings of extremities 2nd day on. Repeated cysternal punctures showed blood xxx. Whole blood given on 1st day.

Present—this infant is 1 month old, and does not appear to be a normal infant.

Family History—1st child born term; died of hemorrhagic disease of the newborn (melena). The mother lives on a farm, and, on investigating her diet, one finds that it exists largely of vegetables. She states that she ate meats at the most 2 - 3 times a week.

Are we dealing here with a case similar to the one cited by Kugelmass? It is quite likely that we are. We hope to have this patient on a supervised diet regime during her next pregnancy.

BIBLIOGRAPHY

1. **Sharp.**—Intracranial hemorrhage of Newborn Surgery, Gynaecology and Obstetrics, February, 1934.
2. **Sharpe & MacLaire.**—Obstetrics, Gynaecology and Surgery of British Empire, 1925, 32:79.
3. **Roberts.**—The spinal in Newborn, J.A.M.A., 1925, 85:500.
4. **Ullrich.**—Teitschr f. Kinderheilk, 1925, 39:245.
5. **Warwick, Margaret.**—Necropsy findings in Newborn infants, American Journal of Diseases of Children, May, 1921, 24:488.
6. **Rodda.**—The coagulation time of blood in Newborn, with special reference to cerebral hemorrhage, J.A.M.A., 1920, 75:452.
7. **Kugelmass, I. N.**—Hemorrhagic problems, J.A.M.A., Sept. 10, 1932.
8. **Kugelmass, I. N. and Tritsch.**—Prenatal prevention of potential hemorrhagic disease of Newborn, J.A.M.A., February 16, 1929, 92:531.
9. **McNut, Sara.**—Double infantile spastic hemiplegia, with report of a case, American Journal of Medical Science, 1885, Vol. 98.
10. **Osler.**—Principles and Practice of Medicine, Osler and McCrae.
11. **Jensen.**—On. Etiological importance of birth injuries in children with spastic paraplegia, Octa obstet et Gyn Scandinavia, 1927, 6:392.
12. **Fleming.**—Birth injuries in the Newborn, Lancet, September, 1931, page 532.
13. **Munro.**—Cranial and intracranial damage in the Newborn, Surgery, Gynaecology and Obstetrics, 1928, 47:622.
14. **Rydberg.**—(Monogram) Cerebral injuries in Newborn child consequent on birth trauma, 1932.
15. **Heffernan.**—Routine phrophylactic, injections of whole blood in the Newborn, The New England Journal of Medicine, August, 1932, 207:293.

Editorial and Special Articles

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MINUTES of a meeting of the Retiring Executive and the Executive-Elect of the Manitoba Medical Association, held in the Medical Arts Club Rooms on Thursday, November 21st, 1935.

Present.

Dr. G. W. Rogers	Dr. W. G. Campbell
Dr. F. G. McGuinness	Dr. J. C. McMillan
Dr. F. W. Jackson	Dr. R. F. Yule
Dr. G. S. Fahrni	Dr. C. W. MacCharles
Dr. F. A. Benner	Dr. A. S. Kobrinsky
Dr. Gordon Chown	Dr. C. W. Wiebe
Dr. W. E. Campbell	Dr. H. O. McDiarmid
Dr. D. C. Aikenhead	Dr. C. W. Burns
Dr. E. S. Moorhead	Dr. W. S. Peters
Dr. F. D. McKenty	Dr. Geo. Clingan

Minutes of the last Executive meeting, held September 10th, 1935, also minutes of a meeting of the Winnipeg Members of the Executive, held October 3rd, 1935, were read by the Secretary and approved.

Dr. Rogers then addressed the meeting and with a few appropriate remarks turned over the chair to the new President, Dr. F. G. McGuinness.

Dr. McGuinness replied to Dr. Rogers' remarks and opened the business of the meeting by advising that there were two delegates waiting to bring different questions before the Executive, namely, Dr. Gordon Chown and Dr. A. S. Kobrinsky.

Dr. Chown was then called on and presented a complaint with regard to a Victorian Order nurse, who was treating a sick child at 220 Neil Avenue, East Kildonan, and had prescribed diets; objecting to this Dr. Chown communicated with Miss Gray of the Victorian Order of Nurses and was advised that the nurses were competent to do this work. A further case was reported on Rathgar Avenue, where a nurse had taken a throat swab for a patient. Other cases were cited by Drs. W. G. Campbell and F. G. McGuinness, and Dr. Chown was advised that if this matter was put in writing he could be assured of the sympathetic support of the whole Executive.

The matter had been brought before the Winnipeg Medical Society at an Executive meeting held October 20th. The Chairman suggested that this subject should be discussed at a meeting of the Winnipeg Medical Society before being referred to this Executive. Following discussion, it was

Moved by Dr. C. W. MacCharles, seconded by Dr. J. C. McMillan: That we thank Dr. Chown for the information submitted by him and that he be asked to have this presented at a general meeting of the Winnipeg Medical Society to be held on Friday, Nov. 22nd, and that a resolution from them be brought before this Executive immediately afterwards in order that same can be dealt with by a special meeting of the Winnipeg Members of this Executive without delay. —Carried.

Dr. A. S. Kobrinsky then addressed the meeting and read a resolution passed by the Gynaecology and Obstetrical Section of the Winnipeg Medical Society, regarding the status of obstetrical care under the relief scheme in Winnipeg; copy of this resolution is on file. Dr. C. W. MacCharles suggested that this should be brought before the Executive of the Winnipeg Medical Society.

Dr. E. S. Moorhead advised that a very interesting report would be shortly completed that is being prepared by Dr. M. R. Elliott, on cost of medical care for the unemployed on relief.

It was moved by Dr. F. D. McKenty, seconded by Dr. C. W. MacCharles: That this be referred back for consideration to the meeting of the Winnipeg Medical Society, together with the matter brought up for discussion by Dr. Chown.

Appointment of Chairmen of M.M.A. Committees to Correspond with C.M.A. Committees.

The Secretary then advised it was necessary to appoint Chairmen for all the Committees of the Manitoba Medical Association to correspond with Committees appointed by the Canadian Medical Association, and that these Chairmen will automatically become Chairmen of the Canadian Medical Association Committees in accordance with request received from Dr. Routley in July last. It was duly moved, seconded and carried that the following Committees be appointed, with Chairmen as listed.

Committee on Constitution and By-Laws ..... Dr. F. D. McKenty
Committee on Credentials and Ethics Dr. D. A. Stewart
Committee on Economics ..... Dr. E. S. Moorhead
Committee on Maternal Welfare ..... Dr. J. D. McQueen
Committee on Medical Education ..... Dr. A. T. Mathers
Osler Memorial Committee ..... Dr. Ross Mitchell
Committee on Pharmacy ..... Dr. W. E. Campbell
Committee on Public Health ..... Dr. A. J. Douglas
Study Committee on Cancer ..... Dr. Gordon S. Fahrni

Appointment of Committees for 1935-36.

The Secretary then advised that it would be necessary to appoint certain other Committees for the Manitoba Medical Association.

Honorary Advisory Committee to Minister of Health and Public Welfare.

Dr. F. D. McKenty addressed the meeting in connection with this Committee and stated that he was of

the opinion that rather than appoint a special committee for this purpose, that the Advisory Council of the Manitoba Medical Association would be a better Committee to handle this duty, in that we would get the information of a cross section of the whole profession if the Advisory Committee were given these duties.

It was moved by Dr. F. D. McKenty, seconded by Dr. H. O. McDiarmid: That the Honorary Advisory Committee to Minister of Health and Public Welfare be dropped and that any information required by the Minister be obtained through the Advisory Council of the Manitoba Medical Association. —Carried.

Representatives to C.M.A. Council.

Dr. F. G. McGuinness, Dr. F. W. Jackson, Dr. W. S. Peters, Dr. F. D. McKenty, Dr. Gordon S. Fahrni, Dr. J. C. McMillan, Dr. E. S Moorhead, Dr. P. H. T. Thorlakson and Dr. J. D. McQueen.

Legislative Committee.

Dr. Gordon S. Fahrni (Chairman), Dr. C. R. Rice and Dr. W. W. Musgrove.

Radio Committee.

Dr. R. W. Richardson (Chairman), with power to add.

Extra Mural Committee.

Dr. Jackson advised that there has been various mistakes in connection with the duties of this Committee in that District Societies request speakers on various occasions from the Secretary's office, from Dr. J. S. McInnes and sometimes from the individual men themselves. Dr. Jackson thought it might be better to have this all handled through the office and in future any requests for speakers be sent to the Secretary.

Following discussion, it was moved by Dr. H. O. McDiarmid, seconded by Dr. W. S. Peters: That the Extra Mural Committee be dispensed with. —Carried.

Committee on Historical Medicine and Necrology.

Dr. Ross Mitchell (Convener), with power to add.

Editorial Committee.

Dr. C. W. MacCharles (Convener), with power to add.

Editorial Board of C.M.A. Journal.

Dr. Ross Mitchell and Dr. E. S. Moorhead, with power to add.

Committee on Maternal Mortality.

Dr. J. D. McQueen (Convener), with power to add.

Auditors.

Dr. A. J. Swan and Dr. D. C. Aikenhead.

Representative to Manitoba Sanatorium Board.

Dr. F. A. Benner.

Workmen's Compensation Referee Board.

Moved by Dr. J. C. McMillan, seconded by Dr. F. D. McKenty: That the appointment of this committee be left with the President and Secretary. —Carried.

Report of Executive Meeting of C.M.A.

Dr. E. S. Moorhead addressed the meeting and reported having attended the Canadian Medical Association Executive Meeting, and advised that there was a large agenda of over 48 items, the most important of which are as follows:

Invitation to the A.M.A. and B.M.A. to Meet in Canada.

It was moved that the General Secretary be authorized to sound the B.M.A. and the A.M.A. with regard to the possibility of holding a joint meeting of the B.M.A., A.M.A. and C.M.A. in Toronto at a time to be subsequently determined; and that it be understood that the Canadian Medical Association will be responsible for all financial arrangements.

It was not expected that this meeting could be held for at least five years.

Report of Committee on Ceremonial.

With regard to the report of the Committee on Ceremonial, it was left to subsequent arrangements as to whether general sessions or sectional meetings should form the bulk of the programme. It was arranged that the oration should take place on Friday morning, the last day of the session, and that the golf tournament should be held in the afternoon of the same day. Considerable discussion took place on the question of entertainment since it was felt that the entertainment by local groups of a large number of visitors might be a tax on the resources of organizations. For this reason there will be no entertainment of the Executive Committee during this session. A paragraph was inserted as follows:

"If the local and provincial societies desire to entertain the Council, it is suggested that this be done on Tuesday evening."

The following amended clause was passed:

(a) The President-Elect may be chosen from any part of Canada without regard to the location of the next annual meeting.

(b) That no member will be considered as eligible unless he has been a member in good standing for the preceding ten years and has attended meetings of Council for one or more years at some time during his period of membership.

Constitution and By-Laws.

Article xiv., which reads as follows, has been added.

"No provision of the Constitution or By-Laws herein set forth shall interfere with the status of a Division as a provincial organization. As a provincial body, it shall have complete control of its own affairs."

There is little change on this subject to report but it was drawn to the attention of the Committee that the new constitution and by-laws does not come into effect until published twice in the Journal and passed at the next annual meeting by the Council of the Canadian Medical Association.

King George V. Silver Jubilee Cancer Fund.

A long discussion took place on the King George V. Silver Jubilee Cancer Fund. The Trustee Board decided that owing to the size of the fund, approximately $420,000, the sum would not be sufficient for research and educational work; as England was spending a considerable sum on research it would be more suitable for Canada to make her contribution in education of the doctors and the public. Since interest on the capital would not be sufficient to conduct a campaign which would be of value it was suggested that the fund should be amortised in such a way as to bring in the sum of forty to fifty thousand dollars annually.

Considerable discussion took place as to the organization under whose direction this campaign should be carried out, and suggestions were made to be conveyed to the Trustee Board.

In the discussion of affairs in British Columbia, it was suggested that Mr. Wolfenden should be sent to British Columbia to make a study of conditions there. The study will take three weeks and would require an expenditure of $2,000.00. In view of statements made previously by Mr. Wolfenden in Winnipeg, your representative on the Executive was not satisfied that Mr. Wolfenden would be able to furnish information worth $2,000.00 and raised the question on two occasions during the discussion. It was finally agreed that

the Sub-Executive Committee should confer with Mr. Wolfenden on the question of the information to be obtained, and was given power to take such action as it saw fit.

F.N.G. Starr Award.

With regard to the F.N.G. Starr Award your representative raised the question of limiting this award to those distinguished for their scientific achievements. Dr. Meakins stated that, if any members of the Executive Committee have any ideas or suggestions to make, they would be very gladly received by the Committee.

Re. Annual Meeting.

Dr. Jackson read resolution passed at the Annual Meeting of the Association, held on September 12th (page 0431), at which it was resolved that the Annual Meeting of the Association should be held in the Spring at a time coinciding with Convocation.

Following discussion, it was moved by Dr. H. O. McDiarmid, seconded by Dr. C. W. Wiebe: That the Winnipeg members of the Executive be a Committee to study the place and date, to arrange for the program, and that they report back to the Executive at the next meeting. —Carried.

Correspondence.

Letter was read from Dr. R. W. Richardson, Chairman of the Radio Committee, under date of October 16th, advising that the present time Health Talks are given by the Department of Health, Manitoba Medical Association and the Winnipeg Health League, and that it has been suggested by CKY that broadcasting Health Talks should come under one Committee and that these three bodies broadcast jointly.

Moved by Dr. W. G. Campbell, seconded by Dr. H. O. McDiarmid: That Dr. R. W. Richardson be appointed as representing the Manitoba Medical Association, to a Committee of Three, one to be appointed from each of these bodies, and that Dr. Richardson be asked to get in touch with the Winnipeg Health League. —Carried.

Letter was read by Dr. W. G. Campbell from Dr. A. MacG. Young, Registrar, College of Physicians and Surgeons of Saskatchewan, with reference to the practice of the Canadian Medical Association in drawing drafts for its Annual Fees.

Following discussion, it was moved by Dr. D. C. Aikenhead, seconded by Dr. C. W. Wiebe: That the matter be filed. —Carried.

Signing Officers.

Moved by Dr. H. O. McDiarmid, seconded by Dr. E. S. Moorhead: That the signing officers for the Association for the ensuing year be as follows: Dr. F. G. McGuinness, President; Dr. F. W. Jackson, Secretary, or either, with Dr. C. W. Burns, Treasurer. —Carried.

Committee to Study the Question of Federation.

The Secretary read resolution passed at the last Annual Meeting of the Association (page 0433), requesting the incoming Executive to work out the details of Federation and report back to the next Annual Meeting. Following discussion it was moved that this Committee should be appointed and an article drafted and submitted to the District Societies.

It was moved by Dr. F. D. McKenty, seconded by Dr. G. S. Fahrni: That the appointment of a Committee be left to the President and Secretary, and that this be reported back at the next meeting of the Executive. —Carried.

The Secretary read a letter from Dr. W. G. Campbell, Registrar of the College of Physicians and Surgeons of Manitoba, regarding the education of the public on the merits and standing of the medical profession.

This matter was left in abeyance.

The meeting adjourned.

OBITUARY

DR. T. HERBERT BELL

Dr. T. Herbert Bell of Winnipeg died in the Winnipeg General Hospital on November 28th. Dr. Bell was born in Selwin, Ontario, in 1872 and graduated in medicine from Trinity College, Cambridge, in 1897. He did post-graduate work in the London Eye Hospital and later he practiced for a few years in Ontario and Saskatchewan. He then specialized in Ophthalmology in London, Ontario, for some two years. In 1907 he came to Winnipeg to pursue his specialty. During the Great War he went over seas with the 4th Canadian Field Ambulance under Colonel Webster and served throughout the war with that unit winning the Military Cross.

He returned to Winnipeg in 1919 and resumed practice. At the time of his death he was Professor of Ophthalmology in the Faculty of Medicine, University of Manitoba, head of the Eye Department in the Winnipeg General Hospital and a Fellow of the American College of Surgeons. He is survived by his widow.

A service was held at All Saints Church on Nov. 30th, after which the remains were sent east for burial at Peterborough.

Dr. Bell's death will be mourned by a host of friends and patients, who admired him for his rugged independence, candid speech and skilled hand. He was a highly trained oculist who made no inconsiderable contribution to the development of ophthalmology in western Canada.

College of Physicians and Surgeons of Manitoba

A meeting of the Discipline Committee of the Council of the College of Physicians and Surgeons of Manitoba was held Monday, September 30th, 1935, in the office of the Registrar, 605 Medical Arts Building, Winnipeg, at 8.00 o'clock p.m.

The members present were:

Dr. R. J. Campbell, Chairman
Dr. S. Bardal
Dr. A. E. McGavin
Dr. D. G. Ross
Dr. C. W. Burns
Dr. W. G. Campbell.

The case before the meeting is against Dr. ....., ...,Manitoba, who has affixed the letters F.R.C.P. and F.R.C.S. to his name on his letterhead, stationery and advertising in a local paper, published at ....., Manitoba.

Correspondence has been carried on between Dr. ....., the College of Physicians and Surgeons of Manitoba, and the authorities in Great Britain. Dr. ..... has only replied to one letter directed to him from this office, in which he evaded the question.

Dr. ..... appeared before the Committee.

The Chairman explained to Dr. ..... the reason for calling him before the Discipline Committee, and then proceeded to question him in reference to the charge.

Dr. ..... admitted advertising in the local paper at ....., Manitoba, but stated he did not have letterhead stationery.

After hearing the evidence, and taking into consideration the seriousness of the charge, the Discipline Committee formulated the following recommendation:

Your Committee, after taking into consideration the evasive proceedure and contempt shown by Dr. ..... towards The College of Physicians and Surgeons of Manitoba, and also towards The Royal College of Physicians and Royal College of Surgeons of London, England, in ignoring the efforts put forward by The College of Physicians and Surgeons re. his claim to be F.R.C.P., F.R.C.S., London, England, and his failure to give a satisfactory cause or reason for making this false claim with respect to the same:

Recommend.

"That the name of Dr. ....., ..., Manitoba, be erased from the Register of The College of Physicians and Surgeons of Manitoba, and that he be re-instated on payment of the usual fee of One Hundred Dollars ($100.00), and the production of a satisfactory disclaimer, in triplicate, of his improperly assumed F.R.C.P., F.R.C.S., London, England."

This question was considered by the Council of The College of Physicians and Surgeons of Manitoba, under date of October 9th, 1935, and the name of Dr. ....., ..., Manitoba, was ordered to be erased from the Register of The College of Physicians and Surgeons of Manitoba, in accordance with the recommendation of the Discipline Committee.

Dr. ....., ..., Manitoba, has since produced a satisfactory disclaimer, in triplicate, and his name has been duly restored to the Register of the College of Physicians and Surgeons of Manitoba.

Dr. S. E. "Ward" Turvey, (Manitoba '29), Varsity and Allan Cup hockey star recently passed the M.R.C.P. examination "magna cum laude." He is now on half time at the National Heart Hospital and half time at the National Hospital Queen Square for Nervous Diseases.

Medical Protection

One of the perils that beset medical practice is suit for alleged malpractice. The vast majority of patients appreciate skilful and faithful attendance on the part of their physicians and are reasonably grateful therefor. There remains, however, the occasional ignorant or litigious individual who fails to understand that the wisdom even of an Osler or the skill of a Lister cannot invariably secure the desired happy outcome of a serious illness or accident. When disaster comes he lays the blame on the doctor, then guided by greed and aided and abetted by some black sheep of the legal profession, seeks to make capital out of misfortune. Even the most competent and conscientious medical man may find himself the victim, and, in such case, unless he has adequate protection, bids farewell to peace of mind and to quiet nights.

To guard against the peril, the Canadian Medical Protective Association, a mutual medical defence union, was founded at Winnipeg in 1901 at the thirty-fourth annual meeting of the Canadian Medical Association. It is incorporated by Act of Parliament and affiliated with the Canadian Medical Association. It exists to support, maintain and protect the honour, character and interests of its members, and, more particularly, to give advice and assistance to and defend and assist in the defence of members of the Association in cases where proceedings are unjustly brought or threatened against them.

In the thirty-four years of its existence the Association has rendered most valuable service to its members over the whole Dominion. It has not hesitated when necessary to carry the case to even the highest courts to secure justice, and almost invariably has been successful.

The annual fee is five dollars payable on or before the first of January in each year, and any physician joining on or after July first in any year may do so at half rates. Application may be made by any member in good standing of the Canadian or any Provincial Medical Association, or, if not a member on the recommendation of two members of the Association. Application may be made to the Secretary-Treasurer, T. L. Fisher, M.D., Suite 401, 180 Metcalfe Street, Ottawa, or to one of the following who constitute the Manitoba Executive: S. J. Elkin, S. J. S. Peirce (Brandon), W. Harvey Smith, H. M. Speechly, Ross Mitchell or the Secretary of the Manitoba Medical Association.

—R. B. M.

The Canadian Medical Protective Association

PRESIDENT - JOHN F. ARGUE, M.D.

A mutual medical defence union founded in 1901 at the Winnipeg meeting of the Canadian Medical Association, incorporated by act of Dominion Parliament February 1913, and affiliated with the Canadian Medical Association, 1924.

OBJECTS: To assist in the defence of its members in cases of alleged malpractice, and to encourage honourable practice in the daily work of the medical profession. The annual fee is five dollars per calendar year, half-rates after July first.

Subject to our by-laws, assistance is given by the payment of the taxable costs of actions together with reasonable counsel and witness fees in cases undertaken by our Association, as well as damages if awarded. All members in good standing of the Canadian and various Provincial Medical Associations may be enrolled upon signing the application form and paying the annual fee. All other regularly qualified practitioners must have their application countersigned by two members of our Association. Blank application forms and other literature upon request.

Address all Correspondence to the Secretary-Treasurer
SUITE 401 – 180 METCALFE STREET, OTTAWA, CANADA

The Canadian Medical Protective Association

Application for Membership

I,.....(Please print name in full), aged....., a qualified practitioner of the Regular School of Medicine, hereby apply to be enrolled as a member of the Canadian Medical Protective Association. I am a graduate of..... University, in the year....., and a duly licensed practitioner of the Province of..... I am also a member in good standing of..... Medical Association.

Signature.....

Address.....

.....

Recommended by two members of the Association, unless applicant is a member in good standing of the Canadian or any Provincial Medical Association.

.....

.....

Dated at....., 19.....

(Make cheques payable at par in Ottawa to the Canadian Medical Protective Association, Suite 401, 180 Metcalfe St., Ottawa).

Department of Health and Public Welfare

NEWS ITEMS

THE REDUCTION OF MORBIDITY IN VENEREAL DISEASES — S. C. Peterson, M.D.

The following is the second part of Dr. Peterson's address on "The Reduction of Morbidity in Venereal Diseases." The remaining portion of this address will appear in the next publication of "News Items."

My remarks so far have been made under the general heading of "Social Hygiene." Let us now consider briefly three means of decreasing the incidence of venereal disease more directly concerned with the profession itself. First: Personal prophylaxis; Second: Epidemiology; Third: Early diagnosis and treatment. As to personal prophylaxis, at the beginning of the present century Metchinkoff and Rouix discovered and demonstrated beyond the possibility of doubt that the spirochete of syphilis may be killed upon the surface of the mucous membrane. Successful application of this discovery was made during the World War by the British Army which distributed prophylactic packets for self-disinfection; and by the American Army which established centres for skilled disinfection. But neither of these systems has achieved any large measure of success in a civilian population.

An English Committee of Inquiry reported:

1. That skilfully applied disinfection after intercourse would often prevent infection.

2. The success of any general public facilities for self-disinfection is likely to be small.

3. That they could find no reason why people should not be allowed to purchase disinfectants for their own use.

Dr. Clark reported for the United States in 1931, that "In the States and cities in which prophylactic stations have been established they have been so poorly patronized that they have been given up."

It still remains true that an ointment containing 33% of calomel will, if properly applied to the exposed surfaces, within a few hours of exposure, prevent syphilitic infection. It should be applied, if possible, within one hour, and in any case within eight hours. The prevention of chancroid and gonorrhea by disinfection is not so certain. Occasional failures have been reported, even after expert prophylactic treatment was administered. But it is probable that thorough washing with soap and water followed by urination, and the installation of a solution of one of the silver salts into the urethra of the male, will prevent infection by the goncoccus in the vast majority of exposures.

Livermore and Schuman are the authorities for the statement that "medical prophylaxis in women is a very simple procedure. Immediately after a suspect coitus, the vulva and vagina are irrigated with a 10% solution of argyrol contained in a rubber bulb or glass syringe. If a coating of the silver salt be spread on the genital tissues prophylaxis is assured."

It would seem that some method of prevention at the original source of the infection could be worked out if sufficient thought and energy were applied to the development of an effective personal prophylactic method. The fact that in the American Army in France during the late war, 242,000 prophylactic treatments were followed by only 1.3% infections, indicates what can be done with early and prompt disinfection, using approved methods and materials. But the same considerations which forbid mention of syphilis and gonorrhea over the radio and in the press also forbid the public advocacy of personal measures of disinfection, largely because of this being a "compromise with vice."

Epidemiology

Harrison calculates that "For every woman under treatment for gonorrhea in any country there is at least one other not being treated at all, and until we can devise means of getting this section of the infected public under treatment, there is little chance of our making much impression on the incidence of gonorrhea."

Dr. Munson, of the New York State Health Department, and Doctors Smith and Branfield, of the University of Virginia, have recently demonstrated the practicability of obtaining routinely, from infected persons, pertinent facts regarding the sources of their infections and the individuals with whom they have come in contact. These workers report that a large number of patients in a communicable stage of the disease were not only discovered but were also brought in for treatment by tactful field work. A careful epidemiological study leads to the opinion that syphilis occurs in small, isolated outbreaks, and that the wandering of a promiscuous, infected individual from place to place often results in repeated outbreaks of the disease.

Another observation of great interest which reemphasizes the importance of treating early cases is that practically every source of syphilitic infection was a previously untreated or poorly treated individual who had the disease for a period of less than one year. These facts show the need for seeking and bringing to treatment all cases of early syphilis, their possible sources of infection, and their contacts.

It would be pertinent here to add a word on the interpretation of the Wasserman Test. Physicians should remember that the Wasserman Test, or any other serological test, is of only relative importance and often gives false information. A negative Wasserman in the presence of a venereal sore does not exclude syphilis. The organism in the general circulation may not have had time to stimulate the formation of anti-bodies and until this has happened, the Wasserman will remain negative. It usually takes three weeks from the appearance of a sore before the W. R. becomes positive though it may be less, or much longer.

Neither does a negative Wasserman after treatment indicate that the patient is cured, nor that the reaction will not become positive at a later date.

Furthermore in cases of old syphilis the W.R. is negative in from 20 to 40%. This is especially true in certain diseases of the heart and aorta, the viscera, diseases of the bones, and in old cases of tabes. It must also be borne in mind that the presence of a positive W.R. does not necessarily indicate that the patient has infectious syphilis, or that he should be excluded from his occupation and from society generally.

Lastly, the examiner should bear in mind the effect of alcoholic consumption on the Wasserman reaction.

Early Diagnosis and Prompt Treatment

If we wish to reduce the incidence of syphilis we must diagnose it early and treat it promptly. One or two injections of arsephenamine will destroy every surface spirochete and render the patient non-infectious.

The dark field examination for spirochetae pallidae has been shown to be the only way to indentify early syphilis in the sero-negative stage. Every genital lesion is to be regarded as syphilis until proved not to be. There should be no therapeutic test of early syphilis. Treatment should never be started until the suspicion is proved and the physician is prepared to carry out the full course of treatment necessary for cure. If spirochetes cannot be demonstrated, repeated

blood tests must be made over a period of two or three months.

Congenital Syphilis is as nearly a preventable disease as smallpox. It can be wiped out completely, or nearly so, by the adoption of two simple procedures: (1) The routine use of a diagnostic blood Wasserman in all pregnant women: (2) The adequate treatment of the syphilitic mother during pregnancy. The demonstation of this fact constitutes one of the most brilliant achievements of preventive medicine which, unfortunately, has not been fully applied in practice.

The diagnosis of Gonorrhea in the Male is readily made. When the gonococci have been demonstrated, mild, gentle, local treatment should immediately be instituted. Herrold has shown definitely that the dangers of complications and chronicity can be greatly reduced if treatment be started before the sixth day of the infection, and Wolbarst goes so far as to say that, "More can be accomplished in the first seven days than in the next seven weeks".

In acute Gonorrhea in the Female, an early recognition of the nature of the infection is urgent, not for the purpose of instituting prompt treatment, but rather to interdict any attempt at strenuous local treatment, and also to ensure the rest and general hygiene which is so essential in preventing an extension of the disease to the pelvic structures where the infection is so potentially dangerous.

We have been discussing means and general measures considered essential in bringing about a lessening in the incidence of venereal diseases.

Let us now discuss the reduction of morbidity under the second heading, viz., by the prevention of chronicity and the avoidance of complications in those already infected. We shall consider gonorrhea first.

By making a generous allowance for what differences there may be in personal resistance or in gonococcal virulence, it is safe to say that in the male the gonococcus should have disappeared from the urethra and its adnexa well within four months of the acquisition of the disease. It is probable that lack of resistance is not the answer to the cause of chronicity in more than one in 200 cases. It is certainly a slender thread whereon to hang an excuse for failure to cure. Unquestionably with careful, gentle treatment and proper co-operaion upon the part of the patient, chronic gonorrhea in the male can almost entirely be obliterated as a clinical entity. Irrigations by Janet's or Valentine's method may help to cure some cases of gonorrhea but their use is attended by grave dangers. Furthermore, they are cumbersome and are not essential to curing acute gonorrhea in the male. Without question the passage of any solid body, whether it be a sound, instillating syringe or soft catheter, over the delicate urethral mucosa will cause trauma and such practices will do more harm than good. It is really more essential to know just what not to do than to have a knowledge of a great many things that might be done. Pelouze tabulates the following "Dont's":—

1. Don't do anything that will devitalize the delicate urethral mucosa.

2. Don't injure it by the passage of solid bodies over it until there is reason to feel that the gonococcus is gone.

3. Don't use chemicals that cause a greater reaction than the membrane can stand.

4. Don't fail to gain the patient's co-operation. Lack of it will render practically useless the most careful treatment.

5. Don't entrust treatment to the patient without giving him full and careful instructions as to how to carry it out.

6. Don't inject substances into the posterior urethra where only the anterior is infected.

7. Don't give large doses of gonococcal vaccine in acute or any other gonococcal infection of the urogenital tract.

8. Don't carry out local treatments to the anterior urethra when the posterior urethra is acutely inflamed, for their possibilities for harm outweigh the slight good they may do.

9. Don't forget that posterior urethritis means prostatitis, and that too early prostatic massage means permanent damage to the gland and possibly abscess formations.

10. Don't forget that unskilful prostatic massage, high pressure intravesicular irrigations, and heavy lifting or sexual excitement with a full bladder are the most common determining factors in epididymal involvement.

11. Don't think that a clear urine and no discharge means cure, for the gonococcus has a strong tendency to colonize and lie dormant. Efforts to stir it up are in order before cure is pronounced.

12. Don't forget that the utmost gentleness and judgment in the treatment of acute gonorrhea will obliterate chronic gonorrhea and that the best ally is an untraumatized mucous membrane with good drainage.

Instructions to the patient should be comprehensive and easily understandable.

They should preferably be in the form of a written or printed sheet or pamphlet and the patient should be told to read them over every day until he becomes familiar with them.

It has been the custom to accept the various complications of gonorrhea in the male as unavoidable, as the patient's misfortune, and as no one's fault. Many of these complications are far reaching and disastrous and could be prevented by the exercise of a little care on the part of both physician and patient.

Pelouze makes the statement that the composite picture of gonorrhea in the male as we see it clinically today is made up of about 30% disease and 70% avoidable conditions. Gonorrhea is unquestionably the most poorly treated of diseases; the reasons for this are two—That the means of treatment are inappropriate to the disease, or inappropriate at the time they are used, and that insufficient effort has been made to gain the patient's enthusiastic and intelligent co-operation.

The principal sins committed by the physician are —Too much treatment, rough treatment, and treatment where it is contra indicated. And, on the part of the patient, failure to obey the rules laid down for him.

In the female our efforts at treatment should be directed largely to the avoidance of complications for in her the disease, despite treatment, almost always pursues a complete cycle of acute, sub-acute and chronic. Perhaps nowhere is it more necessary that we should have a clear idea of the indication for, and the limitations of any type of treatment than is the case with gonorrhea in the female. Therapeutic indications are entirely different in the three stages of the disease. These indications have been summarized by the aphorism that the acute stage calls largely for masterly inactivity, the sub-acute for guarded activity, and the chronic, perhaps, for destructive activity. In the acute stage great care must be taken to do nothing that will hinder the natural immunity response in the delicate tissues of the urethra and cervix. As in our treatment in the male we have long since abandoned the idea that we can destroy the gonococcus by powerful germicides. Just why it has been the custom to use solutions four times as strong in the female as in the male is still an unexplained mystery when we know that the minute pathology of gonorrhea is the same in both sexes. It is doubtful if there is any chemical substance that when applied to the local tissues greatly shortens the course of acute and sub-acute gonorrhea in the female, or that prevents gonococcal colon-

ization in the glandular structure and its resulant chronicity of infection. There is on the other hand ample evidence to show that much of the gross pathology of the disease heretofore has been the result of a too strenuous type of local treatment.

Gentleness and watchful waiting should be our motto during the acute and sub-acute stages of gonorrheal infection in the female. Strict avoidance of sexual excitement and alcohol should be observed, and complete rest in bed during the time of the menstrual period should be insisted upon.

Destruction of Skeene's glands by cautery, dissection of the gland bearing area of the cervix and enucleation of Bartholin's glands should be carried out if the infection persists in these structures.

COMMUNICABLE DISEASES REPORTED

Urban and Rural - October, 1935

Occurring in the Municipalities of:—

Chickenpox: Total 270—Winnipeg 171, Brandon 60, St. James 12, Virden 5, Shellmouth 5, Rockwood 5, St. Boniface 4, Boulton 2, Grandview Rural 1, Norfolk North 1, St. Laurent 1, Ste. Rose du Lac 1, (Late reported—September—Edward 2).

Mumps: Total 230—Winnipeg 124, St. Boniface 42, Kildonan West 21, Minnedosa 9, Rosser 7, Unorganized 4, Westbourne 3, The Pas 3, St. James 3, Franklin 3, Kildonan East 2, Montcalm 2, Woodlands 2, Virden 1, St. Vital 1, Rockwood 1, Gladstone Town 1, Dauphin Town 1.

Scarlet Fever: Total 208—Winnipeg 86, Brandon 41, Flin Flon 13, Selkirk 9, St. Boniface 5, Rhineland 5, Silver Creek 5, Kildonan West 4, Portage Rural 3, Winkler 3, Fort Garry 3, Birtle Town 3, Minto 2, Morris Rural 2, Stanley 2, Ste. Rose Rural 2, Ste. Rose du Lac 2, St. Vital 2, Victoria 1, The Pas 1, Tache 1, St. James 1, St. Andrews 1, Stonewall 1, Russell Town 1, Roblin Town 1, Neepawa 1, Manitou 1, Macdonald 1, Lansdowne 1, La Broquerie 1, Clanwilliam 1, Charleswood 1, Blanshard 1.

Whooping Cough: Total 199—Unorganized 64, Winnipeg 37, Victoria Beach 32, St. Boniface 10, Boulton 7, St. James 6, Russell Town 5, Grandview Rural 5, Whitehead 4, Brandon 4, Blanshard 4, Birtle Town 3, Flin Flon 3, Russell Rural 2, Kildonan West 2, Hillsburg 2, Assiniboia 1, Ellice 1, Norfolk S 1, Rosser 1, Shellmouth 1, Victoria 1, (Late reported, August: Hanover 1, Norfolk South 1, September: Edward 1, Kildonan East 1).

Tuberculosis: Total 47—Winnipeg 16, Unorganized 4, St. Vital 2, Stonewall 2, Flin Flon 2, Assiniboia 1, Brokenhead 1, Eriksdale 1, Gimli Rural 1, Gladstone Town 1, Glenella 1, Grandview Town 1, Harrison 1, Lorne 1, Oakland 1, Piney 1, Portage City 1, Portage Rural 1, Riverside 1, Rockwood 1, Rossburn Rural 1, St. Andrews 1, St. Boniface 1, St. James 1, Ste. Rose Rural: Woodlea 1.

Diphtheria: Total 25—Winnipeg 21, Whitemouth 1, Springfield 1, La Broquerie 1, Unorganized 1.

Typhoid Fever: Total 15—Lansdowne 3, Hanover 3, Brandon 3, Boulton 1, Cornwallis 1, Winnipeg 1. (Late reported, September: Silver Creek 2, Winnipeg Beach 1).

Measles: Total 13—St. Clements 3, The Pas 2, Winnipeg 2, Neepawa 2, Brandon 2, Dauphin Town 1, Lorne 1.

Anterior Poliomyelitis: Total 6—Dauphin Rural 1, Dauphin Town 1, Portage City 1, Rossburn Rural 1, Rossburn Town 1, Winnipeg 1.

Erysipelas: Total 6—Winnipeg 2, St. Boniface 1, Ritchot 1, Harrison 1, Hanover 1.

Diphtheria Carriers: Total 2—Winnipeg 1, Boulton 1.

Influenza: Total 2—Winnipeg 1. (Late reported, May: Hamiota Rural 1).

Lethargic Encephalitis: Total 1—(Late reported, August: Brenda 1).

Cerebrospinal Meningitis: Total 1—Winnipeg 1.

Puerperal Fever: Total 1—Rhineland 1.

DEATHS FROM ALL CAUSES IN MANITOBA

For the Month of September, 1935.

URBAN—Cancer 44, Pneumonia 13, Tuberculosis 7, Syphilis 5, Influenza 1, Lethargic Encephalitis 1, Puerperal 1, Erysipelas 1, Typhoid Fever 1, all others under 1 year 1, all other causes 128, Stillbirths 8. Total 211.

RURAL—Cancer 21, Pneumonia 14, Tuberculosis 12, Influenza 3, Syphilis 3, Diphtheria 2, Typhoid Fever 2, Whooping Cough 1, Erysipelas 1, all others under 1 year 3, all other causes 143, Stillbirths 5. Total 210.

INDIAN—Tuberculosis 10, Influenza 1, Pneumonia 1, Puerperal 1, Whooping Cough 1, all others under 1 year 2, all other causes 5. Total 21.

NOTE:—An error appeared in the Report of Deaths for August, 1935, published in last month's issue of the M.M.A. Review under "News Items" from the Department of Health and Public Welfare. Under the heading "Rural", the number of deaths from **Undulant Fever** was given as 3. This should have read **Whooping Cough 3. There were no deaths from Undulant Fever.**